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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,645	09/28/2001	Dong-Gyu Kim	06192.0257.NPUS00	1942

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EXAMINER

WEISS, HOWARD

ART UNIT	PAPER NUMBER
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2814

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/964,645	KIM, DONG-GYU	
	<b>Examiner</b>	<b>Art Unit</b>	
	Howard Weiss	2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 ~~is~~/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 ~~is~~/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

Attorney's Docket Number: 06192.0257.NPUS00

Filing Date: 9/28/01

Continuing Data: none

Claimed Foreign Priority Date: 5/16/01 (KRX)

Applicant(s): Kim

Examiner: Howard Weiss

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 to 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent Claims 1 and 12 claim two different and independent structures:

(a) each extension extended from the pixel electrode of the respective pixel region and overlapping the gate line of on a previous row

(b) each extension extended from the gate line on the previous row and overlapping the pixel electrode of the respective pixel region

Because each of the above embodiments have distinctive and competing structures, it is unclear what final structure of the instant invention is being claimed. The Applicant is advised to amend the claims so this ambiguity is resolved.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 to 6, 9 to 13 and 15 to 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozaki et al. (U.S. Patent No. 6,476,881) and Ikeda et al. (U.S. Patent No. 5,182,661).

Ozaki et al. show most aspects of the instant invention (e.g. Figures 4 to 10) including:

- a substrate **35**
- horizontal gate lines **13a,b** connected to gate electrodes
- horizontal storage capacitor line **23**
- a gate insulating layer **37** covering said gate and storage capacitor lines
- a semiconductor pattern **107** formed on said gate insulating layers
- data lines **11a,b** crossing said gate lines, connected to source electrodes **17a,b** and drain electrodes **21a,b**
- a protective layer **39** with two contacts holes: one **29a,b** connecting the drain electrode to pixel electrodes **27a,b** and the other **31a,b** connecting the storage capacitor line to said pixel electrode
- repair members **33a,b** protruding from said gate line and partially overlapping the pixel electrodes
- subsidiary repair members **9a,b**

Ozaki et al. do not show a plurality of extensions provided to the respective pixel regions, wherein each extension is extended from the pixel electrode of the respective pixel region and overlapping the gate line of on a previous row, or extended from the gate line on the previous row and overlapping the pixel electrode of the respective pixel region and the specific range area of overlap.

Ikeda et al. teach (e.g. Figures 3) to extend the pixel electrode **22** to overlap the gate line **10** of the previous row and to extend the gate line **62** to overlap the pixel electrode **60** to prevent flicker and/or crosstalk (Column 1 Lines 46 to 61). It would have been obvious to a person of ordinary skill in the art at the time of invention to

overlap the gate line of the previous row and to extend the gate line to overlap the pixel electrode as taught by Ikeda et al. in the device of Ozaki et al. to prevent flicker and/or crosstalk.

Since the Applicant has not established the criticality of range of the overlap area stated and since these overlap areas are in common use in similar devices in the art, it would have been obvious to one of ordinary skill in the art to use these values in the device of Ozaki et al. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, the applicant must show that the chosen dimensions are critical. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

5. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozaki et al. and Ikeda et al., as applied to Claims 1 and 12 above, and in further view of Song (U.S. Patent No. 5,909,263).

Ozaki et al. and Ikeda et al. show most aspects of the instant invention (Paragraph 4) except for the repair member in a ring shape and the specific range area of overlap. Song teaches (e.g. Figure 4) to form repair (i.e. connection) members **220** in ring form to reduce pixel defects (Column 3 Lines 5 to 8). It would have been obvious to a person of ordinary skill in the art at the time of invention to form repair members in ring form as taught by Song in the device of Ozaki et al. and Ikeda et al. to reduce pixel defects.

#### ***Response to Arguments***

6. Applicant's arguments with respect to Claims 1 to 19 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lim et al. (U.S. Patent No. 6,448,579), Ukai et al. (U.S. Patent No. 5,042,916) and Takahara (JP 02-310537) teach to overlap pixel electrodes and gate lines.
8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Papers related to this application may be submitted directly to Art Unit 2814 by facsimile transmission. Papers should be faxed to Art Unit 2814 via the Art Unit 2814 Fax Center located in Crystal Plaza 4, room 3C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The Art Unit 2814 Fax Center number is **(703) 308-7722** or **-7724**. The Art Unit 2814 Fax Center is to be used only for papers related to Art Unit 2814 applications. The official TC2800 Before-Final, **(703) 872-9318**, and After-Final, **(703) 872-9319**, Fax numbers will provide the fax sender with an auto-reply fax verifying receipt of their fax by the USPTO.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Howard Weiss at **(703) 308-4840** and between the hours of 8:00 AM to 4:00 PM (Eastern Standard Time) Monday through Friday or by e-mail via **Howard.Weiss@uspto.gov**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group 2800 Receptionist at **(703) 308-0956**.

11. The following list is the Examiner's field of search for the present Office Action:

Field of Search	Date
U.S. Class / Subclass(es): 257/59; 439/43	thru 11/19/03
Other Documentation: none	
Electronic Database(s): EAST, IEL	thru 11/19/03

HW/hw  
19 November 2003

LONG PHAM  
PRIMARY EXAMINER

Howard Weiss  
Examiner  
Art Unit 2814